THE AMERICAN JOURNAL OF PSYCHOLOGY

EDITED BY

KARL M. DALLENBACH
Cornell University

AND

MADISON BENTLEY
Palo Alto, California

EDWIN G. BORING
Harvard University

WITH THE COÖPERATION OF

S. W. FERNBERGER, University of Pennsylvania; J. P. GUILFORD, University of Southern California; HARRY HELSON, Bryn Mawr College; E. R. HILGARD, Stanford University; W. S. HUNTER, Brown University; J. G. JENKINS, University of Maryland; H. M. JOHNSON, Tulane University; G. L. KREEZER, Cornell University; D. G. MARQUIS, Yale University; J. A. MCGEOCH, University of Iowa; R. M. OGDEN, Cornell University; W. B. PILLSBURY, University of Michigan

Vol. LIV

MORRILL HALL, CORNELL UNIVERSITY
ITHACA, NEW YORK
1941

BOSTON UNIVERSITY
COLLEGE OF LIBERAL ARTS
LIBRARY

Chester C. Corbin Library Fund
Bound Dec. 1941

COPYRIGHT, 1941
BY
KARL M. DALLENBACH

67352

BF
1
E87
v.54

TABLE OF CONTENTS

ARTICLES AND NOTES

BARTLETT, M. R., Minimal Auditory Stimuli During the Onset of Sleep 109
BAXTER, B., Problems in the Planning of Psychological Experiments 270
BENTLEY, M., The 'Best' Psychologists 439
BENTON, A. L., Application of Hutt's Revised Scoring of the Kohs Block Designs Test to the Performances of Adult Subjects 131
BERGER, C., The Dependency of Visual Acuity on Illumination and Its Relation to the Size and Function of the Retinal Units 336
BORING, E. G., Communality in Relation to Proaction and Retroaction 280
BORING, E. G., and DALLENBACH, K. M., Research on the Problems of Aging 133
BORING, E. G., GOLDSTEIN, K., and SCHEERER, M., A Demonstration of Insight: The Horse-and-Rider Puzzle 437
BORING, E. G., and HOLWAY, A. H., Determinants of Apparent Visual Size with Distance Variant 21
BRANDT, H. F., Ocular Patterns in Visual Learning 528
BURNHAM, R. W., Intersensory Effects and Their Relation to Memory-Theory 473
BUXTON, C. E., The Continuous Measurement of Strength of Pull by Rats 260
CARLSON, W. S., Demonstrational Uses of Small Projectors 423
CARTWRIGHT, D., Relation of Decision-Time to the Categories of Response ... 174
CATTELL, R. B., Francis Aveling: 1875-1941 608
COFER, C. N., A Comparison of Logical and Verbatim Learning of Prose Passages of Different Lengths 1
CONKLIN, E. S., William Henry Burnham: 1855-1941 611
CORNELL UNIVERSITY, MINOR STUDIES FROM THE PSYCHOLOGICAL LABORATORY OF,
XC. RYAN, T. A., and SCHEHR, F., The Influence of Eye Movement and Postion on Auditory Localization 243
XCI. LACEY, J. I., LACEY, B. C., and DALLENBACH, K. M., Areal and Temporal Variations in Pain Sensitivity 413
COTZIN, M., and GUILFORD, J. P., Judgment of Difficulty of Simple Tasks 38
CRONBACH, L. J., Individual Differences in Learning to Reproduce Forms: A Study in Attention 197
DALLENBACH, K. M., The Cornell Summer Research Station in Psychology 269
DALLENBACH, K. M., *Educational and Psychological Measurement* 294
DALLENBACH, K. M., The New Brunswick Meeting of the Society of Experimental Psychologists 295
DALLENBACH, K. M., Psychology in Junior Colleges 436
DALLENBACH, K. M., Frederick Kuhlmann: 1876-1941 446
DALLENBACH, K. M., and BORING, E. G., Research on the Problems of Aging 133
DALLENBACH, K. M., LACEY, B. C., and LACEY, J. I., Areal and Temporal Variations in Pain Sensitivity 413
DALLENBACH, K. M., and THALMAN, W. A., An Experimental Study of the Relationship between Attensity and Intensity 367
DENNIS, W., The Significance of Feral Man 425
DIEHL, H. T., An Electro-Dynamic Oscillograph: A Tone-Writer 577
DIMMICK, F. L., Black and White 286
DIMMICK, F. L., A Rejoinder 294
DOLL, E. A., Notes on the Concept of Mental Deficiency 116
DUNLAP, J. W., Recent Advances in Statistical Theory and Applications 583
EDWARDS, A. S., Effects of the Loss of One Hundred Hours of Sleep 80
EDWARDS, A. S., Static Ataxiameter for Head and Hips 576
ELLIS, M. M., and MALMO, R. B., Sour Thresholds as a Function of the pH of Hydrochloric and Sulphuric Acids 410
EYSENCK, H. J., A Critical and Experimental Study of Colour Preferences 385

FAY, P. J., and MIDDLETON, W. C., The DePauw Laboratory for Research on the Psychological Problems of Radio 571
FELDMAN, S., Origins of Behavior and Man's Life-Career 53
FERNBERGER, S. W., Perceptual Research in the United States 435
FINGER, F. W., and SCHLOSBERG, H., The Effect of Audiogenic Seizures on General Activity of the White Rat 518
FLEISCHER, R. O., and HUNT, J. MCV., A Communicable Method of Recording Areas in the Rorschach Test 580
FOLEY, J. P., JR., A Classroom Demonstration of the Conditioned Response 418
FRYER, D. H., Articulation in Automatic Mental Work 504
GOLDMEIER, E., Progressive Changes in Memory Traces 490
GOLDSTEIN, K., BORING, E. G., and SCHEERER, M., A Demonstration of Insight: The Horse-and-Rider Puzzle 437
GRINSTED, A. D., A Chair-Stabilometer 564
GUILFORD, J. P., and COTZIN, M., Judgment of Difficulty of Simple Tasks .. 38
GUNDLACH, R. H., The Berkeley Meeting of the Western Psychological Association 607
HEADLEE, C. R., and KELLOGG, W. N., Conditioning and Retention Under Hypnotic Doses of Nembutal 353
HELSON, H., The Twelfth Annual Meeting of the Eastern Psychological Association 441
HENNEMAN, R. H., and TALLEY, J. G., A Classroom Demonstration of the Conditioned Response 115
HILGARD, E. R., and SAIT, E. M., Estimates of Past and of Future Performances as Measures of Aspiration 102
HOLWAY, A. H., and BORING, E. G., Determinants of Apparent Visual Size with Distance Variant 21
HUNT, J. MCV., and FLEISCHER, R. O., A Communicable Method of Recording Areas in the Rorschach Test 580
HUNT, W. A., Anchoring Effects in Judgment 395
HUNTER, W. S., Research Interests in Psychology 605
JACOBSON, E., Recording Action-Potentials without Photography 266
JENNESS, A., and JORGENSEN, A. P., Ratings of Vividness of Imagery in the Waking State Compared with Reports of Somnambulism 253
JEWELL, W. O., JR., and MANN, C. W., Configural Aspects of Human Learning on the Electrical Maze 536
JONES, F. N., and JONES, M. H., The Chronaxy of Pressure in Hairy and Hairless Regions 237
JONES, F. N., and JONES, M. H., The Chronaxy of Pain 240
JORGENSEN, A. P., and JENNESS, A., Ratings of Vividness of Imagery in the Waking State Compared with Reports of Somnambulism 253
JUDD, D. B., The Definition of Black and White 289
KELLER, F. S., and VOLKMANN, J., An Automatic Device for Providing Motivation and Reënforcement in Operant Conditioning 568
KELLOGG, W. N., and HEADLEE, C. R., Conditioning and Retention under Hypnotic Doses of Nembutal 353
LACEY, J. I., LACEY, B. C., and DALLENBACH, K. M., Areal and Temporal Variations in Pain Sensitivity 413
LERNER, E., Edouard Claparède: 1873-1940 ..... 29[illegible]
LEVINSON, R. B., Gertrude Stein, William James, and Grammar ..... 12[illegible]
LOVELL, C., A Study of Personal Variation in Hand-Arm Steadiness 230
MACMILLAN, J. W., Eye-Movements and Attention 374
MALMO, R. B., and ELLIS, M. M., Sour Thresholds as a Function of the pH of Hydrochloric and Sulphuric Acids 410
MANN, C. W., and JEWELL, W. O., JR., Configural Aspects of Human Learning on the Electrical Maze 536
MCBRIDE, K. E., Henry Head: 1861-1940 444
MELTON, A. W., and VON LACKUM, W. J., Retroactive and Proactive Inhibition in Retention: Evidence for a Two-Factor Theory of Retroactive Inhibition 157

MIDDLETON, W. C., and FAY, P. J., The DePauw Laboratory for Research on the Psychological Problems of Radio 571
MILLER, J. G., and STERLING, K., Conditioning under Anesthesia 92
MOORE, I., A Miniature Color-Mixer 424
MORGAN, C. T., STEVENS, S. S., and VOLKMAN, J., Theory of the Neural Quantum in the Discrimination of Loudness and Pitch 315
MORTON, N. W., The Reciprocity of Visual Clearness and the Span of Apprehension 553
MUNN, N. L., The Thirty-Sixth Annual Meeting of the Southern Society for Philosophy and Psychology 439
OLSON, W. C., The Forty-Eighth Annual Meeting of the American Psychological Association 134
PATERSON, D. G., and TINKER, M. A., Eye Movements in Reading a Modern Type Face and Old English 113
PATRICK, C., Whole and Part Relationship in Creative Thought 128
RYAN, T. A., and SCHEHR, F., The Influence of Eye Movement and Position on Auditory Localization 243
SAIT, E. M., and HILGARD, E. R., Estimates of Past and of Future Performances as Measures of Aspiration 102
SCHEERER, M., BORING, E. G., and GOLDSTEIN, K., A Demonstration of Insight: The Horse-and-Rider Puzzle 437
SCHEHR, F., and RYAN, T. A., The Influence of Eye Movement and Position on Auditory Localization 243
SCHLOSBERG, H., Stereoscopic Depth from Single Pictures 601
SCHLOSBERG, H., and FINGER, F. W., The Effect of Audiogenic Seizures on General Activity of the White Rat 518
SEASHORE, R. H., The Sixteenth Annual Meeting of the Midwestern Psychological Association 443
SKINNER, B. F., A Quantitative Estimate of Certain Types of Sound-Patterning in Poetry 64
SPENCE, K. W., Failure of Transposition in Size-Discrimination of Chimpanzees 223
STERLING, K., and MILLER, J. G., Conditioning under Anesthesia 92
STEVENS, S. S., MORGAN, C. T., and VOLKMANN, J., Theory of the Neural Quantum in the Discrimination of Loudness and Pitch 315
SUPA, M., and YOUNG, C. W., Mnemic Inhibition as a Factor in the Limitation of the Memory Span 546
TALLEY, J. G., and HENNEMAN, R. H., A Classroom Demonstration of the Conditioned Response 115
THALMAN, W. A., and DALLENBACH, K. M., An Experimental Study of the Relationship between Attensity and Intensity 367
THORNDIKE, E. L., Mental Dynamics Shown by the Abbreviation and Amelioration of Words in Hearing and Remembering 132
TINKER, M. A., Effect of Visual Adaptation upon Intensity of Light Preferred for Reading 559
TINKER, M. A., and PATERSON, D. G., Eye Movements in Reading a Modern Type Face and Old English 113
UNIVERSITY OF NEBRASKA, MINOR STUDIES FROM THE PSYCHOLOGICAL LABORATORY OF,
XI. JENNESS, A., and JORGENSEN, A. P., Ratings of Vividness of Imagery in the Waking State Compared with Reports of Somnambulism 253
VOLKMANN, J., and KELLER, F. S., An Automatic Device for Providing Motivation and Reënforcement in Operant Conditioning 568
VOLKMAN, J., MORGAN, C. T., and STEVENS, S. S., Theory of the Neural Quantum in the Discrimination of Loudness and Pitch 315
VON LACKUM, W. J., and MELTON, A. W., Retroactive and Proactive Inhibition in Retention: Evidence for a Two-Factor Theory of Retroactive Inhibition 157
WATERS, R. H., The Interpretation of Ebbinghaus's Retention Values 283

WEBER, C. O., The Short-Circuit Phenomenon of Phi-Movement 404
YOUNG, C. W., and SUPA, M., Mnemic Inhibition as a Factor in the Limitation of the Memory Span 546
ZINGG, R. M., A Reply to Professor Dennis 432

BOOK REVIEWS

(The reviewer's name appears in parentheses after the title of the work.)

ADAMS, G. P., DENNES, W. R., LOWENBERG, J., MACKAY, D. S., MARKENKE, P., PEPPER, S. C. and STRONG, E. W., Selected Writings in Philosophy (M. ten Hoor) 156
BAILEY, E. W., BISHOP, E. L., and LATON, A. D., Studying Children in School (C. C. Dimmick) 472
BARTLETT, F. C., Political Propaganda (J. G. Jenkins) 616
BELGODERE, F. J. A., La Verdad, la Ciencia y la Filosofia (R. M. Bellows) .. 314
BIDNEY, D., The Psychology and Ethics of Spinoza (M. ten Hoor) 627
BIRD, C., Social Psychology (D. Katz) 625
BLANTON, M. G., Bernadette of Lourdes (T. H. Howells) 313
BLUMENFELD, W., Investigaciónes Referentes a la Psicólogia de la Juventud Peruana (R. M. Bellows) 630
BLUMER, H., Critiques of Research in the Social Sciences: I. An Appraisal of Thomas and Znaniecki's The Polish Peasant in Europe and America (H. Gurnee) 307
BODE, B. H., How We Learn (W. B. Pillsbury) 461
BOWLBY, J., and DURBIN, E. F. M., Personal Aggressiveness and War (R. R. Sears) 153
BRADLEY, C., Schizophrenia in Childhood (M. Murphy) 623
BROMBERG, W., and WINKLER, J. K., Mind Explorers (F. J. Gaudet) 312
BROSSE, T., and MARCAULT, J. E., L'education de demain: La biologie de l'esprit et ses applications pedagogiques (W. M. Sparks) 308
BROWN, J. F., The Psychodynamics of Abnormal Behavior (F. N. Maxfield) 621
BROWN, W., and THOMSON, G. H., The Essentials of Mental Measurement (A. K. Kurtz) 619
BURT, C., The Factors of the Mind: An Introduction to Factor-Analysis in Psychology (A. Anastasi) 613
BUTTERFIELD, O. M., Love Problems of Adolescence (J. McV. Hunt) 312
CARLSON, E. R., Born That Way (A. Anastasi) 629
COWDRY, E. V., Problems of Ageing: Biological and Medical Aspects (F. A. Geldard) 617
CRITCHLEY, M., The Language of Gesture (W. Johnson) 311
DENNIS, W., The Hopi Child (D. Katz) 467
DOOB, L. W., The Plans of Men (P. R. Farnsworth) 144
DURBIN, E. F. M., and BOWLBY, J., Personal Aggressiveness and War (R. R. Sears) 153
ERDÉLYI, M., and GROSSMAN, F., Dictionary of Terms and Expressions of Industrial Psychology ("Psychotechnics") (H. L. Ansbacher) 626
FLEXNER, H. T., A Quaker Childhood (M. F. Fritz) 470
GARNETT, M., Knowledge and Character (M. F. Fritz) 152
GROSSMAN, F., and ERDÉLYI, M., Dictionary of Terms and Expressions of Industrial Psychology ("Psychotechnics") (H. L. Ansbacher) 626
HARTMAN, G. W., and NEWCOMB, T., Industrial Conflict: 1939 Yearbook of the S.P.S.S.I. (F. J. Roethlisberger) 137
HAYDON, E. M., and NOYES, A. P., A Textbook of Psychiatry (F. N. Maxfield) 150
HORNEY, K., New Ways in Psychoanalysis (P. Hampton) 149
HULL, C. L., FITCH, F. B., HALL, M., HOVLAND, C. I., PERKINS, D. T., and ROSS, R. T. Mathematico-Deductive Theory of Rote Learning (J. R. Kantor) 300

HUNT, W. A., and LANDIS, C., The Startle Pattern (R. C. Davis) 148
HUSBAND, R. W., General Psychology (J. F. Dashiell) 459
INGRAM, M. E., Principles of Psychiatric Nursing (L. F. Shaffer) 155
JACOBY, H. J., Analysis of Handwriting: An Introduction into Scientific Psychology (S. H. Britt) 310
KAHN, S., Psychological and Neurological Definitions and the Unconscious (G. J. Rich) 471
KATONA, G., Memorizing and Organizing (A. W. Melton) 455
KLINEBERG, O., Social Psychology (H. Peak) 465
LANDIS, C., Sex in Development (L. M. Terman) 453
LANDIS, C., and HUNT, W. A., The Startle Pattern (R. C. Davis) 148
LEOPOLD, W. F., Speech Development of a Bilingual Child: A Linguistic Record (M. F. Meyer) 311
LEVINE A. J., Current Psychologies (R. Y. Walker) 313
LIGHTY, M., and ZACHRY, C. B., Emotion and Conduct in Adolescence (R. R. Sears) 314
LINDQUIST, E. F., Statistical Analysis in Educational Research (H. A. Edgerton) 471
LUND, F. H., Emotions: Their Psychological, Physiological, and Educative Implications (C. A. Ruckmick) 304
MACDERMOTT, M. M., Vowel Sounds in Poetry: Their Music and Tone-Colour (W. Johnson) 620
MACDOUGALL, C. D., Hoaxes (J. D. Jenkins) 628
MACKENZIE, C., and SOULE, E. S., Community Hygiene (D. F. Smiley) 627
MARCAULT, J. E., and BROSSE, T., L'education de demain: La biologie de l'esprit et ses applications pedagogiques (W. M. Sparks) 308
MILLER, P., The New England Mind (E. Freeman) 146
MOODIE, W., The Doctor and the Difficult Child (T. Burling) 622
MOORE, T. V., Cognitive Psychology (G. B. Vetter) 306
MUELDER, W. G., and SEARS, L., The Development of American Philosophy (G. W. Cunningham) 628
MUNN, N. L., Psychological Development: An Introduction to Genetic Psychology (J. P. Foley, Jr.) 141
NEWCOMB, T., and HARTMANN, G. W., Industrial Conflict: 1939 Yearbook of the S.P.S.S.I. (F. J. Roethlisberger) 137
NOYES, A. P., Modern Clinical Psychology (T. Hunt) 143
NOYES, A. P., and HAYDON, E. M., A Textbook of Psychiatry (F. N. Maxfield) 150
PINTNER, R., EISENSON, J., and STANTON, M., The Psychology of the Physically Handicapped (W. T. Root) 624
RHINE, J. B., GREENWOOD, J. A., PRATT, J. G., SMITH B. M., and STUART, C. E., Extra-Sensory Perception After Sixty Years (H. E. Garrett) 449
SALISBURY, F. S., Human Development and Learning (S. R. Wallace) 151
SANDERSON, R. W., and TROTT, N. L., What Church People Think About Social and Economic Issues (H. Gurnee) 310
SCHOEN, M., The Psychology of Music (C. M. Diserens) 462
SEARS, L., and MUELDER, W. G., The Development of American Philosophy (G. W. Cunningham) 628
SHAFFER, L. F., GILMER, B. v. H., and SCHOEN, M., Psychology (W. N. Kellogg) 138
SHAW, T. L., Art's Endurance (R. M. Ogden) 156
SHELDON, W. H., STEVENS, S. S., and TUCKER, W. B., The Varieties of Human Physique (L. Carmichael) 457
SIMMONS, E. J., Dostoevski: The Making of a Novelist (C. M. Diserens) 620
SIMMONS, R. McK., A Study of a Group of Children of Exceptionally High Intelligence Quotient in Situations Partaking of the Nature of Suggestion (W. Dennis) 469
SORENSON, H., Psychology in Education (R. M. Bellows) 463
SOULE, E. S., and MACKENZIE, C., Community Hygiene (D. F. Smiley) 627
STRANG, R., Pupil Personnel and Guidance (G. E. Manson) 470

TEAGARDEN, F. M., Child Psychology for Professional Workers (M. Murphy) 468
THOMSON, G. H., and BROWN, W., The Essentials of Mental Measurement (A. K. Kurtz) 619
THORNDIKE, E. L., Human Nature and the Social Order (K. Young) 448
TIFFIN, J., KNIGHT, F. B., and JOSEY, C. C., The Psychology of Normal People (L. W. Crafts) 140
TROTT, N. L. and SANDERSON, R. W., What Church People Think About Social and Economic Issues (H. Gurnee) 310
VERNON, P. E., The Measurement of Abilities (A. Anastasi) 154
WALLIN, J. E. W., Minor Mental Maladjustments in Normal People (D. Wechsler) 309
WARDEN, C. J., JENKINS, T. N., and WARNER, L. H., Comparative Psychology. II. Plants and Invertebrates (L. Carmichael) 615
WATKEYS, C. W., An Orientation in Science (S. R. Wallace) 151
WECHSLER, D., The Measurement of Adult Intelligence (E. E. Cureton) 154
WERNER, H., Comparative Psychology of Mental Development (A. Gesell) 147
WHEELER, R. H., The Science of Psychology: An Introductory Study (F. A. Pattie, Jr.) 625
WILLIAMSON, E. G., How to Counsel Students (A. M. Kershner) 629
WINKLER, J. K., and BROMBERG, W., Mind Explorers (F. J. Gaudet) 312
WOODWORTH, R. S., Psychology (L. H. Lanier) 466
YOUNG, K., Personality and Problems of Adjustment (W. A. Hunt) 468
ZACHRY, C. B., and LIGHTY, M., Emotion and Conduct in Adolescence (R. R. Sears) 314